

Application No. 10/534,747
Amendment dated October 26, 2006
Reply to Office Action of June 27, 2006

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REMARKS/ARGUMENTS

Former claims 1 through 12 were either rejected as anticipated in light of German Utility Model DE 20009030 and/or obvious in light of this reference in combination with United States Patent 6,155,813.

A revised set of claims have been added to the application and are believed to fully distinguish over the cited prior art.

As the Examiner can appreciate, a molding system of the type shown in the present application and the cited references is quite large and expensive. A significant portion of this expense is associated with the mold blocks that are typically designed for producing a particular product having specific certain exterior and interior dimensions. Attempts have been to modify the mold blocks with interchangeable face components as generally disclosed in the cited German Utility Model and some of the references of interest.

In these prior art systems, the entire interior face of the mold blocks is defined by interchangeable inserts. These inserts can then be replaced with a different set of inserts for the manufacture of pipe having a different exterior configuration. The interior of the pipe would also be of a different configuration if the pipe is not a double wall pipe as disclosed and discussed in the present application. With the prior art systems, the interchangeable inserts defining the inner shape of the mold blocks, are replaced or modified to define a different pipe exterior. In the conversion of the mold blocks for the manufacture of one pipe to a different pipe, there is a trade off between the labour necessary to replace the

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interchangeable inserts, relative to changing the entire mold blocks.

The claims as now amended require that the mold blocks include an integral trough, and an integral crest mounting portion. The claims also require two different crests forming parts which are mountable on the crest mounting portions. With this arrangement, only the crest forming parts are replaced and thus the time to changeover a mold block is reduced. Furthermore, by having the trough integral with the mold block, more effective cooling is provided to the trough and in a preferred embodiment, these integral troughs include connection to a vacuum force for effectively drawing of the corrugation into the trough. By having the trough and the crest mounting portion integral with the mold block, better cooling, particularly of the trough is provided. As the Examiner can appreciate, part of the crest mounting portion partially defines the wall of the trough and also affects cooling.

In the manufacture of large diameter plastic pipe, and in particular double wall corrugated pipe, effective cooling of the pipe is important to allow manufacture of the pipe at a relatively high rate, while not introducing damaging thermal stresses into the pipe. With the present claimed invention, the applicant has recognized that effective modification of the molding system can be accomplished by having mold blocks with integral troughs and replaceable crest forming parts. Furthermore, the replaceable crest forming parts are of different dimensions to define a pipe having different depths of corrugations. The outer diameter of the pipe is constant as it is defined by the integral troughs and thus outer connectors for the corrugated pipe will be the same.

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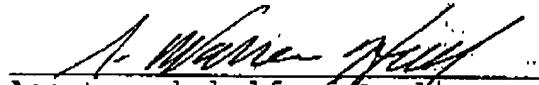
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In the preferred embodiment, the cooling plugs are replaced such that the interior wall of the pipe is also maintained at a certain thickness.

The cited prior art is completely deficient in the recognition of this specific combination which adds versatility to the molding system while still providing a system that is cost effective to set up. Furthermore, the particular system provides better control and accuracy with respect to the forming of the corrugations of the pipe.

In view of the above, reconsideration and allowance of the application is requested.

Respectfully submitted,


Agent on behalf of Applicant
S. Warren Hall
Registration No. 30,350
(416) 368-8313

WH/sdw